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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/BA2						R-1 ITEM NOMENCLATURE Historically Black Colleges and Universities (HBCU) PE 0602228D8Z			

<i>COST (In Millions)</i>		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Total Program Element (PE) Cost		22.031	23.784	13.970	14.212	14.476	14.750	15.017	Continuing	Continuing
HBCU/P489		22.031	23.784	13.970	14.212	14.476	14.750	15.017	Continuing	Continuing

(U) A. Mission Description and Budget Item Justification

(U) BRIEF DESCRIPTION OF ELEMENT

(U) P2228D, Historically Black Colleges and Universities and Minority Institutions (HBCU/MI). The HBCU/MI program provides infrastructure support in fields of science and engineering that are important to national defense. The DoD Infrastructure Support Program is the only program that encourages participation of small minority schools as well as research institutions. This competitive program provides support through grants or contracts for research, collaborative research, education assistance, instrumentation purchases, and technical assistance. This project competitively supports programs at minority institutions nationwide in the following areas:

- Research. The research grants are designed to further the knowledge in the basic scientific disciplines through theoretical and empirical activities. Collaborative research allows university professors to work directly with military laboratories or other universities. Collaborators include other educational institutions (not necessarily HBCU/MIs), a DoD laboratory or Research, Development, and Engineering Center (RDEC), a DoD University Affiliated Research Center (UARC), and/or industry or small business partner.

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- Education. Education assistance funds are used by the selected institutions to strengthen their academic programs in science, mathematics, and engineering thereby increasing the number of under-represented minorities obtaining undergraduate and graduate degrees in these fields. These grants provide equipment, scholarships, cooperative work/study opportunities, visiting faculty programs, summer programs, and a variety of other enhancements designed to support students and to encourage them to pursue careers in science, mathematics, and engineering.
- Infrastructure. Funds for instrumentation allow institutions to increase their capability to perform research of interest to the Department. This program allows the university to purchase from basic laboratory equipment for education program enhancements to highly sophisticated research instruments, such as lasers and spectrometers.
- Technical assistance. These funds are used to design programs to enhance the ability of minority institutions to successfully compete for future Defense funding. The objective is to assist the HBCU/MI community in areas such as proposal writing and administration of grants and contracts.

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(U) **Project Number and Title: P489 HBCU**

(U) **PROGRAM ACCOMPLISHMENTS AND PLANS**

(U) **FY 2001 Accomplishments:**

(U) Continue evaluation of the awards made with the prior year funds. In FY 2001 the HBCU/MI Infrastructure Support Program made 80 awards using the program funds. These 80 awards include 56 instrumentation grants and 24 research grants related to: enhancing instrumental capability in organic, biochemistry, and student research labs; establishment of a UNIX-Based computing facility for mathematics department; encapsulated nanoscale molecular aggregates as enhanced luminophores and chemical sensors; photonics laboratory at Florida A&M University; acquisition of a high speed imaging system for dynamic characterization of advanced materials; acquisition of a nuclear magnetic resonance spectrometer; optical and electron beam material processing and characterization; novel cathodes and cathodic catalysts for solid state power sources; development of variable temperature scanning laser microscope for diagnosing coated conductors; DoD computer science instrumentation improvement at Elizabeth City State University; and acquisition of high sensitivity MPMS for magnetic thin films and MEMS research. Among the awardees were 41 historically black colleges and universities, 19 Hispanic-Serving Institutions, three Tribal Colleges and Universities, and 17 other minority institutions. These awards were a combination of new starts, and continuations of some grants and other efforts started under previous fiscal years depending on technical progress.

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The Services selected the competitive awards from proposals submitted under the Infrastructure Support Program for HBCU/MIs: FY 2001 broad agency announcement distributed in October 2000. To date, 8 competitions have resulted in 267 Instrumentation grants, 51 research grants, 20 education awards, 9 education centers and 2 technical assistance awards in the Infrastructure Support Program. (\$ 14.031 million)

The FY 2001 HBCU/MI program also contained two congressional adds (\$3.000 Million) for Tribal Colleges and Universities (TCUs) and (\$5.000 Million) for Hispanic Serving Institutions (HSIs), which resulted in two separate/new broad agency announcements. As a result of the competitions, 25 awards were made to HSIs (18 instrumentation awards and 7 research awards); and 17 instrumentation awards to TCUs. Selected awards were made for computer-based physical science curricula enhancement, establishing a science computing center at Texas A&M University-Kingsville, fundamental studies of strengthening mechanisms in metals using dislocation, epitaxial and high permittivity perovskite thin films for microwave applications, instrumental/equipment for introductory math/science at Dine College; analytical chemistry equipment for Sitting Bull College, development of a Tribal College Science Teaching Laboratory at Northwest Indian College, and a state-of-the-art facility for Sisseton Wahpeton Community College. (\$ 8.000 million)

(U) FY 2002 Plans:

(U) Continue evaluation of the awards made with prior year funds. The FY 2002 competition will be made for science, mathematics, and engineering research education, and infrastructure efforts are being conducted. In FY 2002, the HBCU/MI program will make additional awards using the program funds. These awards will be a combination of new starts, and continuations of some grants and other efforts started under previous fiscal years depending on technical progress. The focus in FY 2002 will be to strengthen the HBCU/MIs in the areas of science, mathematics, and engineering (SME) as well as equip and renovate laboratories for performance of defense research. The Services will select the competitive awards from proposals submitted under the Infrastructure Support Program for HBCU/MIs: FY 2002 broad agency announcement will be distributed in October 2001. These awards will be made for instrumentation for education programs, research, undergraduate scholarships and graduate scholarships/fellowships. (\$ 23.784 million)

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(U) FY 2003 Plans:

(U) Continue evaluation of the awards made with prior year funds. In FY 2003, the HBCU/MI program will make additional awards using the program funds. These awards will be a combination of new starts, and continuations of some grants and other efforts started under previous fiscal years depending on technical progress. The Services will select the competitive awards.
(\$ 13.970 million)

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(U) <u>B. Program Change Summary</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>Total Cost</u>
President's FY 2001 Budget Submission	14.236	14.402	14.017	Continuing
Delta	7.795	0.082	0.000	
FY 2002 Amended President's Budget Submission	22.031	14.484	14.017	Continuing
Appropriated Value	22.236	23.784	0.000	Continuing
Adjustments to Appropriated Value				
a. Congressionally Directed Undistributed Reduction	0.000	0.000	0.000	
b. Rescission/Below-threshold Reprogramming, Inflation Adjustment	-0.205	0.000	0.000	
c. Other	0.000	0.000	-0.047	
Current FY 2003 Budget Submission	22.031	23.784	13.970	Continuing

Change Summary Explanation:

(U) Funding: FY 2001 reductions reflect Section 8086 adjustments.

(U) Schedule: N/A

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(U) **Technical:** N/A

(U) **C. Other Program Funding Summary Cost:** N/A

(U) **D. Acquisition Strategy:** N/A

(U) **E. Schedule Profile:** N/A

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